IN THE CLAIMS:

1-16. (Canceled).

17. (Currently Amended) A method of determining whether a medicament has therapeutic activity and/or possible side-effects ~~of a medicament~~, said method comprising:

introducing a medicament to an organism;

determining a relative ratio of a first nucleic acid and/or gene product thereof of an endosymbiont cellular organelle ~~and~~ to any second nucleic acid and/or gene product thereof of said organism in a sample obtained from said organism; and

determining whether there is a change in the relative ratio before, during and/or after introduction of the medicament, wherein said change in said relative ratio is indicative of a therapeutic activity and/or a side-effect of the medicament.

18. (Currently Amended) The method according to claim 17, wherein said introducing said medicament comprises introducing said medicament to said organism for at least three months.

19. (Previously Presented) The method according to claim 17, wherein said medicament is used for treatment of a chronic disease.

20. (Currently amended) The method according to claim 17, wherein said introducing ~~a~~ said medicament ~~to said organism~~ comprises introducing said medicament to an organism free from side-effects at a first time said medicament is introduced to said organism.

21. (Previously Presented) The method according to claim 17, wherein said therapeutic activity comprises a therapeutic activity against an HIV-related disease and/or a tumor-related disease.

22. (Currently Amended) The method according to claim 17, wherein said medicament comprises a nucleoside and/or nucleotide analogue.

23. (Previously Presented) The method according to claim 22, wherein said nucleoside and/or nucleotide analogue is selected from the group consisting of fludarabine, mercaptopurine, tioguanine, cytarabine, flurouracil, gemcyatbine, and mixtures thereof.

24. (Previously Presented) The method according to claim 17, wherein said medicament comprises AZT, ddI, ddC, d4T, 3TC or tenofofir.

25. (Currently Amended) The method according to claim 17, wherein said determining said relative ratio comprises determining said relative ratio prior to said introducing said medicament.

26-46. (Canceled).

47. (Currently Amended) The method according to claim 17, wherein said relative ratio of said first nucleic acid and/or gene product thereof to said second nucleic acid and/or gene product thereof is determined in ~~the same~~ a single assay with said sample.

48. (Currently Amended) The method according to claim 47, further comprising amplifying said first nucleic acid and/or gene product thereof and said second nucleic acid and/or gene product thereof in ~~the same~~ a single assay with said sample.

49. (Previously Presented) The method according to claim 47, wherein said relative ratio is determined directly by dividing an amount of said first nucleic acid and/or gene product by an amount of said second nucleic acid and/or gene product.

50. (Previously Presented) The method according to claim 47, wherein said relative ratio is determined directly by dividing an amount of said second nucleic acid and/or gene product by an amount of said first nucleic acid and/or gene product.

51. (Currently Amended) The method according to claim 47, wherein said relative ratio is determined by ~~comparison with~~ comparing said relative ratio to a reference curve.

52. (Currently Amended) The method according to claim 47, wherein said first nucleic acid and/or gene product thereof and said second nucleic acid and/or gene product thereof are obtained from a peripheral blood mononuclear cell or fibroblast of said organism.